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ABSTRACT

School finance is basic to understanding and improving the condition of rural education. The purpose of this study was to: (1) determine the relationship between educational spending and component property wealth in the rural schools of Illinois; (2) examine potential trends in component property wealth in Illinois; and (3) identify and facilitate the collection of related data bases in the other six states of the North Central Regional Educational Laboratory. The study proposed a multidimensional definition of rural education based on five criteria for use with large computer-readable data bases. Comparative analysis of rural, urban, and small nonrural school districts found that in rural school districts: (1) expenditures per pupil are lower; (2) mean family income is generally less; (3) assessed valuation per pupil is lowest; (4) the community is making a greater effort to provide an educational program, based on ratio of operating expenditures per pupil to median family income; (5) the best predictors of operating expenditures per pupil were agricultural and mineral property wealth per pupil and median family income; and (6) a greater proportion of property wealth associated with agricultural and mineral properties. Implications for policy decisions include using alternative methods for determining wealth in school aid formulas and resource equalization. The appendix presents in 12 data tables the summary information derived from the analysis. (KS)

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FINANCING RURAL EDUCATION IN THE NORTH CENTRAL REGION: A PILOT STUDY IN ILLINOIS

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Prepared for the
North Central Regional Educational Laboratory

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One in a Series of Reports in NCREL's Rural Education Program

1989

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Introduction

School finance is basic to understanding and improving the condition of rural education. Effective educational planning for school improvement is dependent on financial planning that reflects an appropriate expenditure plan and a related revenue plan. The expenditure plan details the goods and services necessary to carry out the educational plan, whereas the revenue plan describes sources of revenue the school district may reasonably expect within the given year.

Educational and financial planning problems of rural schools include those associated with low school and school district enrollment, population sparsity, diverse pupil needs, fiscal equity of aid formulas, and composition of the property tax base. Collection and analysis of large data bases that would describe the condition of school finance are basic to the development of policy making for the improvement of rural education.

The purpose of this study was (1) to determine the relationship between educational spending and component property wealth in the rural schools of Illinois, (2) to examine potential trends in component property wealth in Illinois, and (3) to identify and facilitate the collection of related data bases in the other six states of the North Central Regional Educational Laboratory (NCREL).

Critical to the analysis of large computer-readable data bases is a clear and concise definition of a rural school or rural school district. This study proposes alternative definitions of rural education based on geographic area, student enrollment, composition of property tax base, and census classification and reports results associated with the diverse classifications.

The methodology used in this study was consistent with the Regional Documentation Project at the Center for Governmental Studies of Northern Illinois University, the objective of which was to review and analyze large computer-readable data bases that can provide information on the status of rural education. This study determined the relationship between component property wealth--residential, agricultural, commercial, industrial, railroad, and mineral--and educational spending. The following data bases were accessed in the study.

1. **Illinois Department of Revenue, Property Tax Division, Property Tax Files (1980-1985).** These files contain equalized assessed valuation by class of property--residential, farm, commercial, industrial, railroad, and minerals--for each of approximately 6,000 taxing districts. Data for each of approximately 1,000 school districts for each of the years were selected from these files.

2. **Illinois State Board of Education**

   Annual Financial Reports (1978-79 through 1985-86). These files contain approximately 2000 line-item revenue and expenditure entries on each of approximately 1000 school districts for each year.

   Annual State Aid Claims (1979-80 through 1985-86). These files contain attendance, equalized assessed valuation, tax rate, Chapter I count, corporate personal property replacement payments, and such other data as is necessary to calculate the general state aid entitlement for each of the 1,000 school districts for each year.

Assessed Valuation and Tax Rate (1978-1985). These files contain total equalized assessed valuation data and tax rate data for each fund for which each of the districts is authorized to file a levy for each of the 1,000 school districts for each year.

Public School District Profiles (1980-1986). These files contain information from a number of ISBE reports and represent information which is frequently of interest to a variety of persons. Information relates to attendance, absenteeism, and drop-out rates; finance, including revenue and expenditure summaries; personnel, including numbers by various classes; school district variables, including number of buildings, size of geographic area, and other related variables.

Rural School Districts: An Operational Definition

An expected outcome of the study was the specification of alternative definitions of rural education for use in analysis of large data bases. A review of the literature revealed references to numerous dimensions. For example, Barker and Muse in a 1983 study of rural schools systems under the auspices of the Rural Education Association collected descriptive data on K-12 and 1-12 public school districts that enroll 900 students or less (Barker, 1985). The State Education Department of New York identified rural school districts as those having a density of 25 pupils or less per square mile (Monk & Stutz, 1981). Helge (1986) subscribes to the following:

> A district is considered rural when the number of inhabitants is fewer than 150 per square mile or when located in counties with 60 percent or more of the population living in communities no larger than 5,000 inhabitants. Districts with more than 10,000 students and those within a standard metropolitan statistical area (SMSA), as determined by the U.S. Census Bureau, are not considered rural (p. 101).

Jess (1981) used two enrollment categories to describe rural school districts--those districts having enrollment under 300 pupils and those districts having enrollment under 1,000 pupils--with the condition that such districts be located in rural areas with populations of fewer than 2,500 residents in their communities and surrounding open countrysides. In a review of factors used by the states in funding rural education Edington and Edington (1982) found that pupil enrollment, number of teachers, population sparsity, isolation, and local effort were among the factors used in determining eligibility for special funding. The absence of a generally accepted working definition of rural schools or rural school districts is evident from research agenda submitted to the U.S. Department of Education by the Rural Education Association ("REA submits research agenda," 1985). The fourth-ranked research theme was the development of a taxonomy of rural education, which would include the following:

1. Determine what constitutes a rural school.

2. Describe the characteristics of rural schools as perceived at the national, regional, state, and local levels.

3. Classify rural schools by size, geographic region, degree of remoteness and/or isolation, etc.

4. Describe the demographic make-up of students who attend rural schools.

5. Determine where America's rural schools are located.

6. Identify definitions of rural, remote, isolated, and small schools at national, regional, state and local levels.

7. Describe the differences between rural and urban schools.

Clearly, this brief review indicates that any definition of rural education should include reference to small enrollments, sparsely populated areas and geographic location in isolated rural areas.

Dimensions of Ruralness

An objective of this study was to develop a concise definition of a rural school or rural school district that could be used with large computer-readable data bases. Hence, information essential to defining a rural school or district must be readily available from existing data bases and should not require additional survey data. Therefore, this study proposes to provide an operational definition of rural education that addresses five dimensions--enrollment, ratio of assessed valuation of agricultural property to total assessed valuation, ratio of assessed valuation of agricultural and mineral property to total assessed valuation, number of pupils per square mile, and whether or not the school district was located within a Standard Metropolitan Statistical Area (SMSA) as defined by the Bureau of Census. The five dimensions are defined as follows:

Enrollment (SIZE). A school district met one condition of ruralness if the enrollment was below a specified number. Otherwise, the school district met one condition of urbanness. For this study, the cut points were 1,350 students in average daily attendance for K-12 districts, 900 for K-8 districts, and 350 for 9-12 districts (Source: Annual State Aid Claims).

Sparsity (SPARSITY). A school district met one condition of ruralness if the density was below a specified number. Otherwise, the school district met one condition of urbanness. For this study, the cut points were 15 pupils per square mile for K-12 districts, 10 for K-8 districts, 5 for 9-12 districts (Source: Public School District Profiles).

Agricultural (FARMLAND). A school district met one condition of ruralness if the ratio of assessed valuation of farmland to total assessed valuation was greater than or equal to .25 (25 percent). If the ratio of assessed valuation of farmland to total assessed valuation was less than .25, then the school district met one condition of urbanness (Source: Property Tax Files).

Agricultural and Mineral (FARMMNRL). A school district met one condition of ruralness if the ratio of assessed valuation of farmland and minerals to total assessed valuation was greater than or equal to .25 (25 percent). If the ratio of assessed valuation of farmland and minerals to total assessed valuation was less than .25, then the school district met one condition of urbanness (Source: Property Tax Files).

Isolation (ISOLATN). A school district met one condition of ruralness if it was not located within an SMSA. If a school district was located within an SMSA, then the school district met one condition of urbanness (Source: U.S. Census Data).

Matrices were developed for each of the three types of Illinois school districts--elementary school districts, encompassing grades K-8; high school districts, grades 9-12; and unit school districts, grades K-12--to indicate the number of school districts ruralness on each of the five dimensions.

An analysis of Table 1 indicates that 252 of the 372 elementary school districts (67.7 percent) were classified as rural using the dimension of enrollment. However, only 32.5 percent (121 of 372) were classified as rural on the basis of sparsity of students per square mile. Very little difference was noted in school districts classified as rural when ratios of assessed valuation of agricultural property or agricultural and mineral properties to total assessed valuation were used. Approximately 30 percent of elementary school districts were classified as rural when farmland and farmland/mineral property values were considered. Of the 372 elementary school districts, 138 (37.1 per cent) were located outside SMSAs and were classified as rural on this dimension.

Table 1

Ruralness of Elementary School Districts by Dimension of Ruralness

Size	Sparsity	Farmland	Farmmnrl	Isolatn	Ruralsum	
0	0	0	0	0	0	N=108
108	0	0	0	11	1	N=119
22	3	0	0	19	2	N= 22
12	10	2	2	10	3	N= 12
17	15	17	18	5	4	N= 18
93	93	93	93	93	5	N= 93
252	121	112	113	138		372

Table 1 provides information regarding the consistency with which a dimension is useful in identifying "rural school districts." For example, 108 of the 252 school districts which were classified as rural on the basis of size failed to be classified as rural on any of the other four dimensions. The variable RURALSUM provides summary information regarding the number of school districts which met from *zero* to *five* definitions of ruralness. Table 1 indicates that 108 of the 372 elementary school districts failed to be classified as rural under any of the five definitions. Hence, this group of 108 elementary school districts constitutes the group of elementary school districts with the greatest degree of urbanness. Elementary school districts which were classified as rural on 4 or more definitions possess the greatest degree of ruralness. This group contains 111 (4, N=18; 5, N=93) elementary school districts. It is these two groups, those with the greatest urbanness and the greatest ruralness that will be targeted for further analysis.

Examinations by a panel of experts revealed that misclassifications occurred when elementary school districts met only one, two, or three definitions of ruralness. Examination of school districts that met two or three definitions revealed that some districts

could be classified as either rural or urban when minimal additional information was considered. Elementary school districts that met only one definition for rural classification were from one of two groups --small enrollment school districts that met no other definition (108 districts) or school districts located outside a SMSA that met no other definition (11 districts). A decision was made to eliminate from further analysis those school districts that met one, two, or three definitions of ruralness. However, a decision was made to retain for further analysis a group of school districts that were classified as small and nonrural. Therefore, a comparative analysis of urban, rural, and small nonrural school districts will be presented. Tables 2 and 3 provide similar ruralness/urbanness information for high school and unit school districts.

Table 2

Ruralness of High School Districts by Dimension of Ruralness

Size	Sparsity	Farmland	Farmmnrl	Isolatn	Ruralsum	
0	0	0	0	0	0	N=71
0	0	0	0	8	1	N=8
1	1	1	1	2	2	N=3
2	3	0	1	3	3	N=3
3	11	11	11	8	4	N=11
25	25	25	25	25	5	N=25
31	40	37	38	46		121

Table 3

Ruralness of Unit School Districts by Dimension of Ruralness

Size	Sparsity	Farmland	Farmmnrl	Isolatn	Ruralsum	
0	0	0	0	0	0	N=37
5	2	0	0	20	1	N=27
7	9	2	3	16	2	N=16
13	17	6	7	14	3	N=19
35	37	40	41	11	4	N=41
182	182	182	182	182	5	N=182
242	247	230	232	243		324

As a result of using the five-dimensional definition to determine ruralness, we find that the number of rural, urban, and small school districts for further study include the following:

	Rural	Urban	Small
Elementary school districts	111	108	142
High school districts	36	71	3
Unit school districts	223	37	25

Summary statistics for the three types of school districts are presented in Tables 4-6 of Appendix A. Summary data for each subgroup includes the number of school districts, the number of students, the number of buildings, total area encompassed by the subgroup, and the 1980 census population for the specified subgroupings. In addition, summaries of T-tests of urban vs. rural and rural vs. small school districts for the three types of districts are presented in Tables 7-10 of Appendix A. (Note: The small number of small high school districts does not permit a comparative analysis of differences between small high school districts and rural high school districts.)

Components of Property Wealth

Components of property wealth were defined as equalized assessed valuation per pupil for each of the following property tax classifications: (1) residential, (2) farm, (3) commercial, (4) industrial, (5) railroad, and (6) minerals. Definitions of the various classifications as provided by the Illinois Department of Revenue are as follows:

Residential Properties (RES). Residential property includes all property used or developed primarily for residential purposes, improved or unimproved, and located within or outside boundaries of a city or village.

Commercial Properties (COM). Commercial property includes all property used for stores, apartments over six units, hotels office buildings, gas stations, public garages, and similar properties.

Industrial Properties (IND). Industrial property includes all property used by manufacturing plants, warehouses, grain elevators, and similar properties.

Railroad Properties (RR). Railroad property includes all railroad property that is assessed locally.

Farm Properties (FRM). Farm property includes rural property, improved and not improved with buildings.

Mineral Properties (MIN). Mineral properties include mineral rights for coal, oil and gas, limestone, sand and gravel, and other minerals.

An additional element of property wealth was defined as a function of corporate personal property tax replacement payments, which may be defined in the following terms:

Corporate Personal Property Replacement Equalized Assessed Valuation (CPPRV). Corporate Personal Property Replacement Equalized Assessed Valuation is a contrived measure of wealth that is defined as the quotient of corporate personal property replacement payments during a given year and the 1977 operating tax rate. Corporate personal property replacement payments are in lieu of taxes paid on corporate personal property assessed valuation of 1978 and prior years. The Illinois constitution required that the corporate personal property tax be abolished and a new tax enacted that would not transfer the tax burden to other classes of taxpayers. In 1979, the Illinois General Assembly passed House Bill 2569 and imposed a tax upon corporations, partnerships, and utilities to replace corporate personal property tax revenues.

Findings

The findings from this study speak directly to issues that are pertinent to understanding and improving rural education. First, a multidimensional definition of rural education was proposed for use with large computer-readable data bases. A unit school district operating grades K-12 was classified as rural if it met at least four of the following five criteria: enrollment of less than 1,350; pupil sparsity of less than 15 pupils per square mile; at least 25 percent of assessed valuation from farmland; at least 25 percent of assessed valuation from farmland or mineral properties; and location outside a Standard Metropolitan Statistical Area. (Proportionate limits were established for elementary and high school districts.) Second, comparative analyses were made between rural and urban and between rural and small nonrural school districts to determine how rural school districts differ from the other two groups of districts. Third, information sources were identified for access and future research regarding the condition of rural education and rural school finance. Fourth, a brief description of the condition of rural school finance is presented for the development of policy making for the improvement of rural education.

Classifications of School Districts

Rural School Districts

1. The number of school districts which were classified as rural were 111 elementary, 36 high and 223 unit school districts.

2. The average enrollment was 171 for elementary, 257 for high and 653 for unit school districts.

3. The average geographical size was 48 square miles for elementary, 118 square miles for high and 117 square miles for unit school districts.

4. The average number of building utilized was 1.1 in elementary, .97 in high (non-operating districts are permissible) and 3.2 in unit school districts.

5. The average operating expenditure per pupil was $2,947 in elementary, $4,245 in high and $2,907 in unit school districts.

6. The median family income was $20,186 in elementary, $19,152 in high and $19,288 in unit school districts.

7. The average operating tax rate for general state aid purposes was 1.93 percent in elementary, 1.69 percent in high and 2.93 percent in unit school districts.

8. The average real property wealth per pupil for state aid purposes was $80,958 in elementary, $110,370 in high and $46,432 in unit school districts.

9. The average ratio of operating expenditures per pupil to median family income was .15 in elementary, .23 in high and .15 in unit school districts.

10. The average ratio of average daily attendance to 1980 census population was .12 in elementary, .05 in high and .17 in unit school districts.

Urban School Districts

1. The number of school districts which were classified as rural were 108 elementary, 71 high and 37 unit school districts.

2. The average enrollment was 2,288 for elementary, 3,127 for high and 26,680 (including Chicago) for unit school districts.

3. The average geographical size was 10 square miles for elementary, 35 square miles for high and 56 square miles for unit school districts.

4. The average number of building utilized was 6.0 in elementary, 2.2 in high and 45 (including Chicago) in unit school districts.

5. The average operating expenditure per pupil was $3,347 in elementary, $4,833 in high and $3,202 in unit school districts.

6. The median family income was $28,461 in elementary, $27,847 in high and $25,762 in unit school districts.

7. The average operating tax rate for general state aid purposes was 2.31 percent in elementary, 1.84 percent in high and 3.41 percent in unit school districts.

8. The average real property wealth per pupil for state aid purposes was $92,331 in elementary, $139,664 in high and $46,850 in unit school districts.

9. The average ratio of operating expenditures per pupil to median family income was .12 in elementary, .18 in high and .13 in unit school districts.

10. The average ratio of average daily attendance to 1980 census population was .11 in elementary, .05 in high and .16 in unit school districts.

Small Nonrural School Districts

1. The number of school districts which were classified as rural were 142 elementary, 3 high and 39 unit school districts.

2. The average enrollment was 450 for elementary, 240 for high and 912 for unit school districts.

3. The average geographical size was 10 square miles for elementary, 74 square miles for high and 67 square miles for unit school districts.

4. The average number of building utilized was 1.8 in elementary, 1.0 in high and 3.6 in unit school districts.

5. The average operating expenditure per pupil was $3,484 in elementary, $5,612 in high and $3,090 in unit school districts.

6. The median family income was $26,832 in elementary, $18,780 in high and $20,746 in unit school districts.

7. The average operating tax rate for general state aid purposes was 1.86 percent in elementary, 1.25 percent in high and 2.66 percent in unit school districts.

8. The average real property wealth per pupil for state aid purposes was $140,180 in elementary, $515,935 in high and $68,221 in unit school districts.

9. The average ratio of operating expenditures per pupil to median family income was .13 in elementary, .28 in high and .15 in unit school districts.

10. The average ratio of average daily attendance to 1980 census population was .10 in elementary, .06 in high and .16 in unit school districts.

Comparative Analysis of Rural, Urban, and Nonrural Small School Districts

1. Within similar types of school districts, expenditures per pupil are somewhat lower in rural school districts than in urban or small nonrural school districts. The difference ranges from $200 in unit school districts to $600 in high school districts.

2. Within like types of school districts, median family income is generally less in rural school districts than in urban or small nonrural school districts. For elementary school districts, median family income is approximately $6,000 less than that in urban and nonrural school districts. Due to the small number of cases for small nonrural school districts values are suspect for high school districts. Median family income in small nonrural districts is similar to that in rural school districts and in both cases median family income is approximately $5,000 less than in urban unit school districts.

3. Traditionally, the operating tax rate has been used as a measure of effort to support an educational program. The findings indicate that within district types, urban school districts have the highest tax rates (or make the greatest effort) and small nonrural school districts have the lowest tax rates (or make the least effort).

4. Traditionally, the equalized assessed valuation per pupil has been used as a measure of ability to support an educational program. The findings indicate that within district types, rural school districts have the lowest assessed valuation per pupil (have the least ability) and small nonrural school district have the highest assessed valuation per pupil (have the greatest ability to support an educational program).

5. An alternative measure of effort can be defined as the ratio of operating expenditures per pupil to median family income. All other things being equal, the greater the ratio the greater the effort the community is making to provide an educational program. Due to the small number of cases of small nonrural high school districts that data is suspect. However, a comparison of rural and urban school districts does indicate that with like types of school districts rural school districts are making a greater effort to provide an educational program than are urban school districts. Small nonrural school districts seem to be making an effort which is closely aligned with the effort of the urban school districts.

6. Another measure of effort can be defined as the ratio of the number of pupil to the population. All other things being equal, the greater the ratio the greater will be the effort required by the local community to provide a minimum adequate program. Findings of this study do not indicate significant differences between rural and urban and rural and nonrural school districts on this measure of effort.

7. A correlation analysis between operating expenditures per pupil, component property wealth and income measures revealed that the best predictors of operating expenditures per pupil for urban districts was the amount of corporate and industrial property wealth per pupil and/or the amount of residential property wealth per pupil. In rural school districts, the best predictors of operating expenditures per pupil were agricultural and mineral property wealth per pupil and median family income. For small school districts, the best predictor of operating expenditures per pupil was corporate and industrial property wealth per pupil and/or residential property wealth per pupil.

8. Significant differences in the rate of growth among the various components of property wealth has occurred in recent years (Lows, 1988). Within the three year interval 1981 to 1984, commercial and industrial property has increased between 10-15 percent and corporate personal property replacement tax payments have increased by 40 percent; residential property has increased approximately 4 percent; and agricultural and mineral properties have declined in value by approximately 18 percent.

9. As would be expected, rural school districts have a greater proportion of their property wealth associated with agricultural and mineral properties and a lesser proportion associated with commercial and industrial property. Conversely, urban and small nonrural school districts have larger

proportions of their property wealth associated with residential, commercial and industrial property and less proportions associated with agricultural and minerals.

Discussion of Results

The findings of this study have significant implications for a number of policy decisions. First, this study provides evidence to indicate that although rural and small nonrural schools may be quite similar in many ways they are quite dissimilar in their abilities to access revenues for education and efforts made to support education. Hence, organizations that include members from both groups must recognize that the development of recommendations for policy decisions must take into consideration those dissimilarities.

Second, property tax rates have been a traditional measure of effort in the provision of an educational program. If one accepts this measure, then this study clearly indicates that urban school districts make a greater effort to support an educational program than do rural school districts. However, rural school were found to make a greater effort to support an educational program when the measure of effort was defined as the ratio of operating expenditures per pupil to median family income. Therefore, rural school districts should be alert to efforts to include a reward for effort provision in state and local finance systems and provide input into the definition of effort.

Third, assessed valuation per pupil has been a traditional measure of wealth used in general state aid formulas. Some states do include an income measure as an additional wealth measure in determining the amount of state monies to be distributed to local school districts. This study provides evidence to suggest that rural school districts have a lower median family income than urban or small nonrural school districts and would most likely gain additional state monies from school aid formulas that include income in the wealth measure.

Fourth, the results of this study lend credence to two-stage resource equalization models of state-local school finance systems (Toenjes, 1986). Toenjes proposed that residential property be taxed at the local school district level and that revenue from nonresidential property--agricultural, commercial, industrial, railroad, and mineral--be taxed at the county level and shared within the county. Proposals similar to that of Toenjes would ameliorate inequities resulting from nonresidential component property wealth.

Fifth, the definition of a rural school district as used in this study provides a clear and concise definition that can easily be derived from state reports filed by local school district reports. A number of large computer-readable data bases were identified and information was accessed by merging these files. This study only scratches the surface of information that can be brought to bear in efforts to describe and improve the condition of rural education.

Appendix A

Table 4

Summary Information for Elementary School Districts
Rural, Urban and Small

Variable	Rural	Urban	Small
No. of districts	111	108	142
No. of pupils	19,066	247,050	63,869
No. of buildings	124	655	257
Area in square miles	5,350	1,090	1,480
Population (1980)	170,133	2,577,830	732,280

Table 5

Summary Information for High School Districts
Rural, Urban and Small

Variable	Rural	Urban	Small
No. of districts	36	71	3
No. of pupils	9,257	222,043	722
No. of buildings	35	153	3
Area in square miles	4,254	2,461	223
Population (1980)	180,030	4,414,990	11,692

Table 6

Summary Information for Unit School Districts
Rural, Urban and Small

Variable	Rural	Urban	Small
No. of districts	223	37	25
No. of pupils	145,724	984,648	22,802
No. of buildings	703	1,666	89
Area in square miles	26,201	2,065	1,679
Population (1980)	886,112	7,462,830	182,980

Table 7

Summary of T-Tests for Elementary School Districts
Rural (n = 111) v. Urban (n = 108)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Urban	2.3140	0.46		
Rural	1.9262	0.36	6.95	<.001
Number of Buildings (NSID)				
Urban	6.06	3.71		
Rural	1.12	0.42	13.78	<.001
Area of District in Square Miles (PAOD)				
Urban	10.09	8.04		
Rural	48.20	30.04	-12.90	<.001
Per Capita Tuition Charge (PCTC)				
Urban	$3,045	801.03		
Rural	$2,551	775.64	4.64	<.001
Operating Expenditures Per Pupil (OEPP)				
Urban	$3,347	811.66		
Rural	$2,947	766.06	3.75	<.001
Median Household Income - 1980 (MHI)				
Urban	$25,768	6414.71		
Rural	$17,969	3523.86	11.07	<.001
Median Family Income - 1980 (MFI)				
Urban	$28,461	6706.94		
Rural	$20,186	3358.63	11.45	<.001
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Urban	$92,331	50812.39		
Rural	$80,958	46283.36	1.73	—
Effort2 - (OEPP/MFI)				
Urban	0.1211	0.034		
Rural	0.1503	0.048	-5.13	<.001
Effort6 - (ADA/POP80)				
Urban	0.1111	0.093		
Rural	0.1202	0.031	-0.96	—

Table 8

Summary of T-Tests for High School Districts
Rural (n=36) v. Urban (n=71)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Urban	1.8398	0.32		
Rural	1.6931	0.32	2.21	<.02
Number of Buildings (NSID)				
Urban	2.15	1.55		
Rural	0.97	0.17	6.37	<.001
Area of District in Square Miles (PAOD)				
Urban	34.66	24.98		
Rural	118.16	77.64	-6.29	<.001
Per Capita Tuition Charge (PCTC)				
Urban	$4,514	954.84		
Rural	$3,874	1140.04	3.07	0.003
Operating Expenditures Per Pupil (OEPP)				
Urban	$4,833	987.77		
Rural	$4,245	1208.61	2.70	0.008
Median Household Income - 1980 (MHI)				
Urban	$24,907	5033.15		
Rural	$16,566	2874.50	10.89	<.001
Median Family Income - 1980 (MFI)				
Urban	$27,847	5565.63		
Rural	$19,152	2681.28	10.90	<.001
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Urban	$139,664	55823.77		
Rural	$110,370	44927.76	2.73	0.007
Effort2 - (OEPP/MFI)				
Urban	0.1768	0.038		
Rural	0.2251	0.073	-3.73	<.001
Effort6 - (ADA/POP80)				
Urban	0.0518	0.011		
Rural	0.0542	0.008	-1.17	—

Table 9

Summary of T-Tests for Unit School Districts
Rural (n=237) v. Urban (n=39)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Urban	3.4153	0.40		
Rural	2.9336	0.38	7.05	<.001
Number of Buildings (NSID)				
Urban	45.03	134.05		
Rural	3.15	1.20	1.90	0.065
Area of District in Square Miles (PAOD)				
Urban	55.82	56.93		
Rural	117.49	58.43	-5.97	<.001
Per Capita Tuition Charge (PCTC)				
Urban	$2,841	488.39		
Rural	$2,527	412.96	4.17	<.001
Operating Expenditures Per Pupil (OEPP)				
Urban	$3,202	540.18		
Rural	$2,907	427.37	3.73	<.001
Median Household Income - 1980 (MHI)				
Urban	$22,788	5101.62		
Rural	$16,905	3119.43	6.72	<.001
Median Family Income - 1980 (MFI)				
Urban	$25,762	4604.65		
Rural	$19,288	2850.60	8.18	<.001
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Urban	$46,850	15177.54		
Rural	$46,432	18073.28	0.13	——
Effort2 - (OEPP/MFI)				
Urban	0.1277	0.032		
Rural	0.1544	0.034	-4.37	<.001
Effort6 - (ADA/POP80)				
Urban	0.1640	0.047		
Rural	0.1672	0.023	-0.40	——

Table 10

Summary of T-Tests for Elementary School Districts
Rural (n = 111) v. Small (n = 142)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Small	1.8640	0.39		
Rural	1.9262	0.36	-1.31	——
Number of Buildings (NSID)				
Small	1.81	0.96		
Rural	1.12	0.42	7.09	<.001
Area of District in Square Miles (PAOD)				
Small	1C 42	13.60		
Rural	48.20	30.04	-12.29	<.001
Per Capita Tuition Charge (PCTC)				
Small	$3,236	1353.65		
Rural	$2,551	775.64	5.06	<.001
Operating Expenditures Per Pupil (OEPP)				
Small	$3,484	1298.10		
Rural	$2,947	766.06	4.10	<.001
Median Household Income - 1980 (MHI)				
Small	$24,241	7671.68		
Rural	$17,969	3523.86	8.62	<.001
Median Family Income - 1980 (MFI)				
Small	$26,832	7912.96		
Rural	$20,186	3358.63	9.00	<.001
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Small	$140,180	151260.90		
Rural	$80,958	46283.36	4.41	<.001
Effort2 - (OEPP/MFI)				
Small	0.1343	0.052		
Rural	0.1503	0.048	-2.51	<.012
Effort6 - (ADA/POP80)				
Small	0.0977	0.034		
Rural	0.1202	0.031	-5.41	<.001

Table 11

Summary of T-Tests for High School Districts
Rural (n = 36) v. Small (n = 3)

(Sample of small high schools is too small)
(for comparative analysis)

Table 12

Summary of T-Tests for Unit School Districts
Rural (n = 237) v. Small (n = 39)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Small	2.6622	0.50		
Rural	2.9336	0.38	-3.26	< .001
Number of Buildings (NSID)				
Small	3.56	1.19		
Rural	3.15	1.20	1.61	----
Area of District in Square Miles (PAOD)				
Small	67.16	44.67		
Rural	117.49	58.43	-4.17	< .001
Per Capita Tuition Charge (PCTC)				
Small	$2,789	815.47		
Rural	$2,527	412.96	1.58	----
Operating Expenditures Per Pupil (OEPP)				
Small	$3,090	731.08		
Rural	$2,907	427.37	1.22	----
Median Household Income - 1980 (MHI)				
Small	$17,905	3256.56		
Rural	$16,905	3119.43	1.51	----
Median Family Income - 1980 (MFI)				
Small	$20,746	2792.13		
Rural	$19,288	2850.60	2.43	< .019
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Small	$68,221	83235.69		
Rural	$46,432	18073.28	1.30	----
Effort2 - (OEPP/MFI)				
Small	0.1513	0.040		
Rural	0.1544	0.034	-0.42	----
Effort6 - (ADA/POP80)				
Small	0.1605	0.032		
Rural	0.1672	0.023	-1.32	----

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